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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,011	09/12/2003	Michael A. Wisniewski	061151-9008-00	6806

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EXAMINER

HESS, DOUGLAS A

ART UNIT	PAPER NUMBER
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3651

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,011

Applicant(s)

WISNIEWSKI, MICHAEL A.

Examiner

Douglas A. Hess

Art Unit

3651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-8, 10-30 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11, 12 and 21-24 is/are allowed.
- 6) ☒ Claim(s) 2-8, 10, 13-20, 24-30 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> . |

Continuation of Attachment(s) 6). Other: Focke et al FIGS 2A_D, and Spec column 3.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 2-8, 10, 13-15, 18-20, 24-30, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Focke et al. (US Pat. 5,088,883).

See the previously attached cover sheet and drawing figure 3 of Focke et al. With markings made by the examiner depicting the claimed features. (THESE SHEETS HAVE NOT BEEN INCLUDED WITH THIS ACTION).

SEE THE NEWLY ATTACHED FIGS 2A-2D AND THEIR ACCOMPANYING PORTION OF THE SPEC IN COLUMN 3.

RE claim 26, Focke et al. would inherently contain a generic shroud as claimed although he does not disclose one.

RE method claims 27-30, the Focke et al. Device is capable of performing each and every method step as claimed.

RE claim 32, Focke et al is capable of inserting or removing an article from his device based on reciprocating motions of his lifters and rotatable members.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Focke et al. USP 5,088,883 in view of Katoch USP 6,135,705.

Focke et al. Teaches the device as outlined above, however Focke et al. fail to teach a separate motor for each of his two rotatable members. Katoch teaches a product stacking device with a first 31 and second 32 rotatable member, each driven by their own motor, 71 and 72 respectively. (See column 4, lines 29-35 of Katoch) It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize 2 motors, one for each rotatable member as taught by Katoch in the device of Focke et al., merely as a design choice based on the motor design and cost associated with the device. As Katoch mentions in column 4, one could use one motor as well with a linkage system, just as the applicant has disclosed.

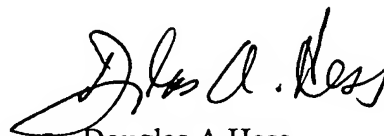
5. Claims 11, 12, and 21-23 allowed.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas A. Hess whose telephone number is 571-272-6915. The examiner can normally be reached on M-Thurs 5:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Douglas A Hess
Primary Examiner
Art Unit 3651

2-9-06

DAH
February 9, 2006

Fig. 2d

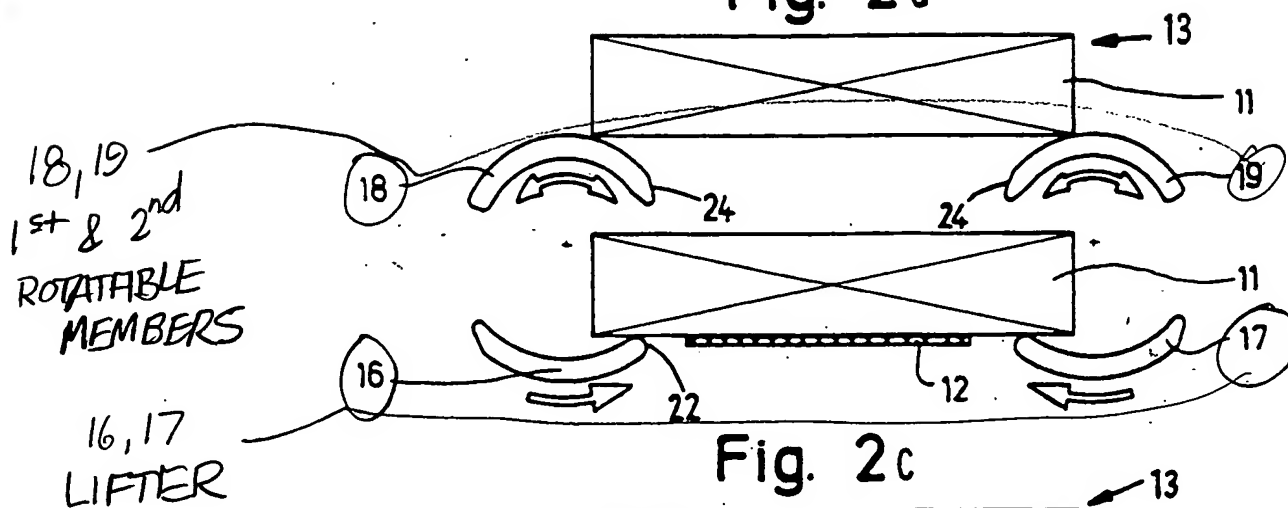


Fig. 2c

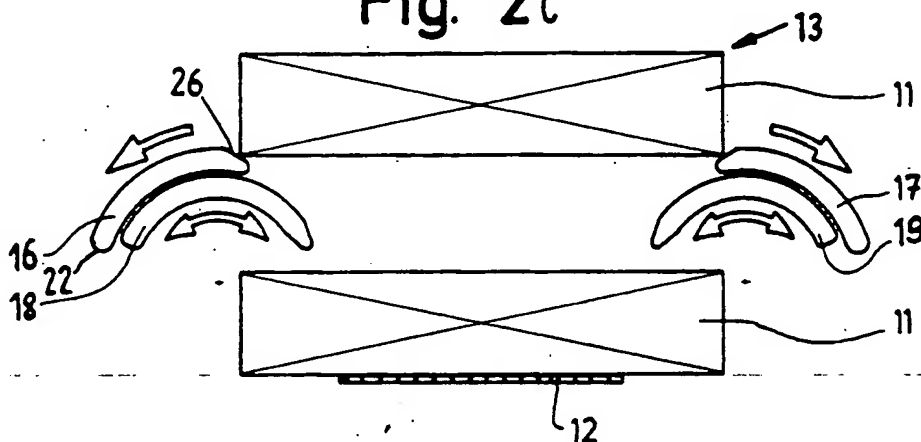


Fig. 2b

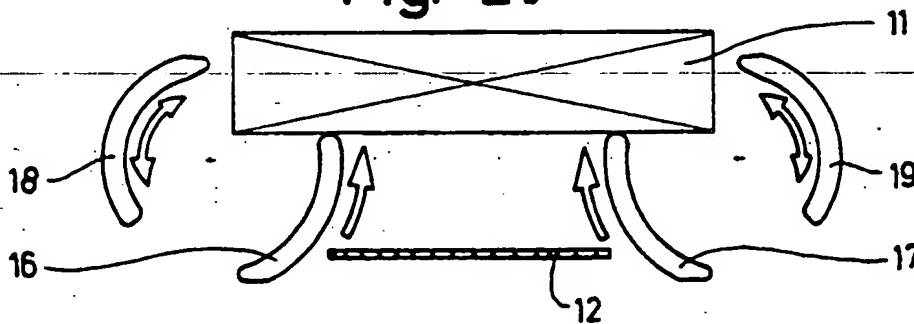
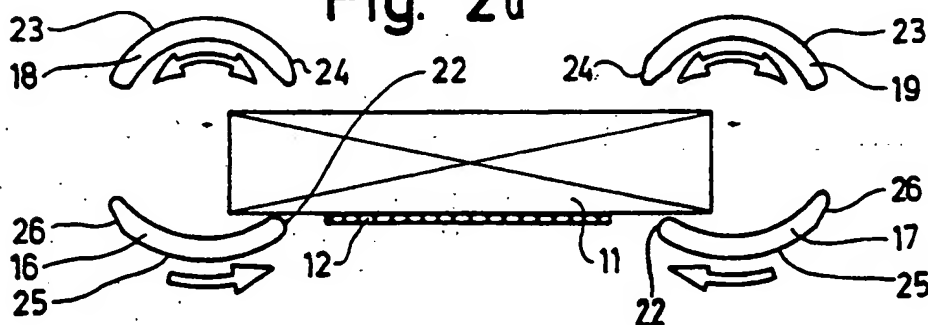


Fig. 2a



guides 20 and 21 arranged on both sides of the packs 11 or pack rows.

FIG. 2 of the drawing illustrates the mode of operation of the apparatus 10, especially of the conveying segments 16, 17 and the holding segments 18, 19. As can be seen, the conveying segments 16, 17 contrarotatingly grip the pack 11 or row of packs 11 with their front ends provided with curvatures 22 from underneath and lift said packs off the conveyor 12, as shown in representation b. The holding segments 18, 19 then pivot in opposite direction to the outside, so that the pack or pack row can be moved upwards past the holding segments 18, 19.

As soon as the conveying segments 16, 17 have lifted the pack 11 or row of packs 11 above the height of, the holding segments 18, 19, the latter pivot in opposite directions inwardly below the conveying segments 16, 17. Since the rotating conveying segments 16, 17 move outwardly and then downwardly as shown in representations c and d, the already lifted packs 11 finally come to rest on the holding segments 18, 19 which hold them there positively in a preset position.

At their back ends, the conveying segments 16, 17 are provided with slopes 26 led inwardly from their outer edges 25, so that the pack 11 or the row of packs 11 is deposited softly and gently on the holding segments 18, 19. Herewith, the stack 13 of packs 11 moves down slightly.

Representation d further shows that the continuously rotating conveying segments 16, 17 grip a new pack 11 and lift it in the afore-described way. The holding segments 18, 19 again pivot to the side in opposite directions, as already described above, and give way for the lifted packs 11 or row of packs. Herewith, the already lifted packs 11 of the stack 13 come to rest on the respective pack 11 moved up by the conveying segments 16, 17. At their inner ends, the holding segments 18, 19 are provided with slopes 24 led inwardly from the outer edges 23 which guarantee that the stack 13 of packs 11 slides off the holding segments 18, 19 pivoting away outwardly without impulsive movements in a soft and gentle manner onto the respective lowermost pack 11 lifted by the conveying segments 16, 17.

As soon as the conveying segments 16, 17 have continued their rotary motion to the point where they leave the region of the lowermost pack 11, the holding segments 18, 19 once again hold the stack 13 of the packs 11. The aforedescribed process continues without interruption while the apparatus 10 is running. During operation, the stack 13 continuously moves up and down in a pulsating manner.

The stack 13 formed by the packs 11 is pushed onto the discharge conveyor 15 at regular intervals by means of the pusher 14. The packs 11 are then provided with wrappings to form a large bundle in a packing machine which is not shown in the drawing.

FIGS. 3 and 4 show that the conveying segments 16, 17 and the holding segments 18, 19 are driven by a continuously rotating main shaft 27. This main shaft 27 is itself driven by an electric driving motor not shown in the drawing.

A cogwheel 28, which is arranged non-rotatably on the main shaft 27, is in engagement with a cogwheel 29 which is pivoted on a bearing bolt 31 being fixed in the housing 30. Via this cogwheel 29, the main shaft 27 drives a cogwheel 32 of a tubular shaft 33, to which the conveying segment is connected. The conveying seg-

ment 16 therefore performs a continuous rotary motion like the main shaft 27.

A crank arm 34 is also fixed non-rotatably on the main shaft 27 and a coupler 35 is articulated on this crank arm 34 on a bearing bolt 36. The coupler 35 is connected to a double arm 37 being formed of two arms 38 and 39 and is articulated on said double arm via a hinged bolt 40. The hinged bolt 40 connects the coupler 35 and both arms of the double arm 37 in an articulated manner. Since the arm 38 of the double arm 37 is pivoted on a stationary journal 41 affixed to the housing 30 and since the arm 39 is connected to a bearing bolt 42 of a cogwheel 44 arranged on a stationary bearing journal 43, the movement of the main shaft 27 is transmitted via the coupler 35 such that the cogwheel 44 performs an oscillatory movement, as can be seen from FIG. 3 and FIG. 4.

FIG. 3 shows that the cogwheel 44 driven for oscillation is in engagement with a cogwheel 45 which is mounted on a bearing journal 46 affixed to the housing 30. As is shown in FIGS. 3 and 4, the cogwheel 45 is itself in engagement with a cogwheel 47 being arranged non-rotatably on a shaft 48 disposed coaxially within the tubular shaft 33. This shaft 48 carries the holding segment 18. FIG. 3 also shows that the cogwheel 44 driven for oscillation is furthermore in direct engagement with a cogwheel 49 which is arranged non-rotatably on a shaft 50 which is connected to the other holding segment 19.

The oscillatory motion of the cogwheel 44 therefore effects a the holding segments 18, 19 to be driven for oscillation as well. The interaction of the rotating conveying segments 16, 17 and the oscillating holding segments 18, 19 and their manner of arrangement effects the already described mode of operation of the apparatus 10.

The conveying segments 16, 17 and the holding segments 18, 19 may also be designed such that they are elongated in axial direction, as shown in FIG. 4, which makes the apparatus according to the invention suitable in particular for longer pack rows. This way, the apparatus can preferably also be used for producing paper tissue packs.

What is claimed is:

1. An apparatus for lifting from a conveyor (12) packs delivered on the conveyor (12) and for forming dischargeable stacks (13) from the packs (11), said apparatus comprising:

a pair of rotating conveying segments (16, 17) each conveying segment of the pair being rotatably mounted on opposite sides of the conveyor (12), for lifting a pack (11) from the conveyor (12) and adding the pack to a stack (13), each conveying segment (16, 17) revolving about an individual axis; and

a pair of oscillating holding segments (18, 19), each holding segment of the pair also being rotatably mounted on said opposite sides of said conveyor (12), for holding a stack (13) of the packs (11), each holding element being associated with a corresponding one of said conveying segments (16, 17) and oscillating about said individual axis of said corresponding conveying segment at a lesser radial distance from said individual axis than said corresponding conveying segment;

wherein said conveying segments (16, 17) are arranged on tubular shafts (33) which are driven directly by a rotating main shaft (27) of the appara-